

CLAIMS LISTING

Claims 1-30 (canceled)

Claims 31-111 (canceled)

112. (New) A computer-implemented business method for actively and declaratively managing, implementing, and executing a first dynamic process incorporating a dynamic pattern of operations driven by real-world conditions causing at least a first behavioral pattern to emerge, said computer-implemented business method comprising:

(a) declaring and stating an Objective of said first dynamic process as a set of measurable Goals and Constraints;

(b) declaring and stating at least one Objective Rule Set having a plurality of Rules, said Rules in the said Objective Rule Set being defined to accomplish at least a part of said Objective by the combination of at least one subset thereof:

wherein the Rules in said Objective Rule Set may act in any order subject to the limitation that, for any specific Rule in said Objective Rule Set, that specific Rule's Condition and applicable Constraints must be satisfied before that specific Rule's Action may occur;

(c) delegating to at least one specific set of Actors consisting of at least one Actor:

at least a first subordinate Objective, subordinate to the Objective, stating the first subordinate Objective as a subset of subordinate, measurable Goals and subordinate Constraints;

a set of Rules for accomplishing said first subordinate Objective;

authority via at least one Rule stating authority for attaining the

subordinate, measurable Goals of said first subordinate Objective;

accountability via at least one Rule stating accountability for attaining the subordinate, measurable Goals of said first subordinate Objective; and,

responsibility via at least one Rule stating responsibility for attaining the subordinate, measurable Goals of said first subordinate Objective subject to the Constraints and subordinate Constraints;

(d) determining the satisfaction of any Rule's Condition and triggering the occurrence of said Rule's Action;

wherein said Rule's Condition incorporates at least one Measurable Value from at least one member of a set of sources; and,
said set of sources comprise a source internal to said dynamic process, a source external to said dynamic process, and a source in the real world;

(e) modifying at least one Element of said dynamic process through the Action of at least a Rule whose Condition is triggered by at least one input from an event in the real world;

(f) defining any Actor as being at least one member of an Actor set comprising human agent, semi-automated agent, and automated agent;

(g) defining any Element as being one member of an Element set comprising a Goal, Rule, Rule Set, Condition, Action, Constraint, Measurable Value, and Delegation;

(h) defining each Rule so as to comprise a Condition that is satisfied when it evaluates to a specified and predetermined value and an Action that is triggered when the Condition is satisfied;

(i) determining the triggered Action of at least a first Rule and its relative order with respect to a second Rule's Action, and therefore the behavior of the dynamic process, at least partially by logical inference from Conditions and Constraints rather than said relative order being predetermined and required by human mandate;

(j) executing automatically at least a subset of the dynamic pattern of operations, defining said subset of the dynamic pattern of operations as comprising a plurality of operations, each operation therein being temporally contiguous to at least one other operation in said subset of the dynamic pattern of operations; and,

(k) specifying a plurality of Elements and implementing each of the steps of declaring and stating, delegating, determining, and modifying, through a declarative and therefore non-procedural representation.

113. (New) A method as in Claim 112 further comprising iterating at least one of the steps of declaring and stating, delegating, determining, and modifying.

114. (New) A method as in Claim 112, further comprising the step of redeclaring and restating at least one Action of at least one Rule as a second dynamic process.

115. (New) A method as in Claim 112 wherein the dynamic process represents a business's operational flow, said operational flow being that business's fundamental business activity of producing goods and services.

116. (New) A method as in Claim 112 further comprising adding at least one new Element to the dynamic process in response to at least one input.

117. (New) A method as in Claim 112 further comprising the step of using the measurable Goals and Measurable Values to enable assessment of any member of a set of assessments, that set of assessments comprising risk of error, minimum contribution of

any Rule to the Goal, maximum contribution of any Rule to the Goal, risk of deviation from the Goal due to the Action of any Rule, performance of at least one Actor, and relative efficiencies among any two Actors.

118. (New) A method as in Claim 112 further comprising using the deviation of Measurable Values from measurable Goals for at least one member of a set comprising accounting control, regulatory control, and reporting without first requiring that the dynamic process terminate.

119. (New) A method as in Claim 112 wherein said method forms a business autopilot, which, once initiated, requires no human intervention to manage successful execution of said subset of the dynamic pattern of operations even when Actions and operations are implemented by human Actors.

120. (New) A method as in Claim 112, further comprising:
including a set of Constraints consisting of at least one Constraint;
including a first Rule Set consisting of at least a first Contained Rule;
including a second Rule Set consisting of at least a second Contained Rule; and,
including a set of ordering Rules consisting of at least one ordering Rule;
wherein the relative order by which each first Contained Rule in the first Rule Set and at least a second Contained Rule in the second Rule Set are satisfied is determined according to at least one member of a set comprising the set of Constraints, implicit Rule precedence making the Action of each Contained Rule in the first Rule Set satisfy a Condition of the second Contained Rule, the set of Constraints, and the set of ordering Rules.

121. (New) A method as in Claim 112, further comprising declaring and stating at least a first Rule Set and a second Rule Set, wherein the second Rule Set is subordinate to the first Rule Set, and wherein the second Rule Set inherits from the first Rule Set at least one Condition of a Rule in the first Rule Set as a Constraint on the second Rule Set and at least one Action of a Rule in the first Rule Set as a Goal of the second Rule Set.

122. (New) A method as in Claim 112, further comprising declaring and stating at least a first Rule Set and a second Rule Set, wherein the second Rule Set is subordinate to the first Rule Set, and wherein at least one change in Constraints by Action of at least one Rule of the second Rule Set is passed to the first Rule Set.

123. (New) A method as in Claim 112, wherein said declarative and therefore non-procedural representation is at least one member of a representation set comprising symbolic logic and declarative computer language.

124. (New) A method as in Claim 112, wherein for at least one Rule:
the Condition of said Rule detects a difference between at least one Element of said dynamic process and a Measurable Value from at least one input, and the Action of said Rule has an affect on at least that one Element of said first dynamic process by modifying that one Element to do at least one member of a response set comprising accommodate the Measurable Value, and adjust performance of said dynamic process as indicated by the Measurable Value.

125. (New) A method as in Claim 112 further comprising analyzing the efficiency of a business operation by measuring the deviation of Measurable Values from measurable Goals.

126. (New) A method as in Claim 112 further comprising :
incorporating a set of resolving Constraints comprising at least one member of a resolving set comprising a resolving Constraint and a resolving Rule; and,
incorporating at least one ambiguous Rule;
wherein said set of resolving Constraints determines whether the ambiguous Rule's Action will be triggered when the evaluation of the ambiguous Rule's Condition is not a value that has been otherwise determined to cause the ambiguous Rule's action to trigger.

127. (New) A method as in Claim 112 wherein, in the step of delegating, at least one member of what is delegated to one specific Actor is a consequence of the Rules, Constraints, and measurements associated with an Actor.

128. (New) A method as in Claim 112 wherein at least one Element maintains consistency among any combination of authority to act, responsibility, response to operational failure, and accountability.

129. (New) A method as in Claim 112 wherein at least one Rule makes explicit why Actions are undertaken and what is to be achieved.

130. (New) A method as in Claim 112 further comprising replacing a first Unrefined Rule by a set of refinement Rules that include at least the Action of the first Unrefined Rule without the set of refinement Rules including the first Unrefined Rule.

131. (New) A method as in Claim 130 further comprising
incorporating a first risk of error associated with the first Unrefined Rule;

incorporating a second risk of error associated with a second Refinement Rule belonging to the set of refinement Rules;
wherein the second Refinement Rule has the least risk of error of any Refinement Rule in the set of refinement Rules; and wherein the second risk of error is not greater than the first risk of error.

132. (New) A method as in Claim 112 wherein the step of declaring and stating at least one Objective Rule Set comprises stating at least a first Objective Rule Set and a second Objective Rule Set, wherein the first Objective Rule Set operates at a first level of the dynamic process and the second Objective Rule Set operates at a second level of the dynamic process.

133. (New) A method as in Claim 132, wherein said first and second levels are indistinct and said first Objective Rule Set and said second Objective Rule Set form a peer to peer organization.

134. (New) A method as in Claim 132, wherein said first and second levels are distinct and said first Objective Rule Set and said second Objective Rule Set form a hierarchical organization.

135. (New) A method as in Claim 112, further comprising declaring and stating at least a first Rule Set and a second Rule Set, wherein the second Rule Set is subordinate to the first Rule Set, and wherein the first Rule Set further receives, from the second Rule Set, the result of an Action by a Rule of the second Rule Set as satisfaction of at least one Condition of a Rule of the first Rule Set.

136. (New) A method as in Claim 135, wherein the first Rule Set further comprises at least a superior Objective and wherein the Action of the second Rule Set conveys information to the first Rule Set sufficient for the first Rule Set to alter at least the superior Objective when the superior Objective does not conform to a Measurable Value from the real world.

137. (New) A method as in Claim 112, further comprising:

including at least a second Rule Set comprising a set of Rules that are connected and have no Rule for which both its Condition is not satisfied by some combination of Actions and events, and its Action does not eventually in combination with the Actions of other Rules in the set satisfy the Conditions of at least one Rule;

including at least a first Satisfied Rule in said second Rule Set whose Condition has been satisfied at least once;

and,

further including a set of pairs comprising an identification of at least one Satisfied Rule and a time said Satisfied Rule was satisfied, said set of pairs being partially ordered and constituting a first subordinate process.

138. (New) A method as in Claim 137 wherein the second Rule Set comprises the entire set of satisfied Rules of the first dynamic process and no explicit ordering of the Rules in the second Rule Set is provided in defining said first dynamic process.

139. (New) A method as in Claim 112 wherein said set of Rules includes at least one anticipatory Rule, the satisfaction of the Condition portion of said anticipatory Rule being merely a possibility and neither a prediction nor a mandate, when said anticipatory Rule is initially stated.

140. (New) A method as in Claim 139 wherein said Condition of said anticipatory Rule incorporates at least one conjunct which, at the time of creation of the Rule, incorporates a Measurable Value that is contrary to the known and projected state of the real world.

141. (New) A method as in Claim 112 further comprising:

- storing said declarative and therefore non-procedural representation in a static and stable form; and,
- preserving human knowledge of said dynamic process.

142. (New) A method as in Claim 141 further comprising the steps of

- organizing in a first business entity said declarative and therefore non-procedural representation of said dynamic process for conveyance to a second business entity, and,
- conveying said declarative and therefore non-procedural representation from the first business entity to the second business entity.

143. (New) A method as in Claim 141 wherein said declarative and therefore non-procedural representation of said dynamic process stores knowledge of at least one member of a set comprising organizational management, at least one model of business organization, at least one operational process, and at least one strategic process.

144. (New) A method as in Claim 141 further comprising the steps of:

- retrieving at least a portion of said declarative and therefore non-procedural representation, and,
- instantiating said portion of said declarative and therefore non-procedural representation as a second dynamic process in a business.

145. (New) A method as in Claim 112 wherein the step of delegating to at least one specific Actor further comprises:

- a first Actor at a first level stating a plurality of business Rules comprising possible Conditions, each Condition comprising at least one member of a set comprising factual circumstance, market situation, business event, and Measurable Value, and joined with at least one corresponding desired Action matching a first measurable Goal;

- a second Actor at a second level identifying a Goal-achieving set of business Rules enabling said first measurable Goal to be attained;

- and;

- said second Actor communicating at least a first result of the Goal-achieving set of Rules to said first Actor.

146. (New) A method as in Claim 145 wherein said plurality of business Rules are responsive to a plurality of events, and wherein the actual operation of the plurality of business Rules are combined to form a business process independent of any pre-existing definition of the business process.

147. (New) A method as in Claim 145 wherein said measurable Goal is expressed as at least one Goal Rule comprising a Goal Condition which identifies said measurable Goal and a Goal Action which specifies any combination of the members of a measure set consisting of a measure of success, a measurement Constraint, and a measure of failure.

148. (New) A method as in Claim 145 wherein the first Actor further:

- identifies the maximum acceptable risk associated with each Risky Rule in a first Risky Rule Set at the second level;

- determines the risk associated with each Risky Rule; and,

for each Risky Rule in the first Risky Rule Set with risk that is not below the maximum acceptable risk associated with said Risky Rule, further refines Actions of each such Risky Rule by delegating its Actions as a Goal to a third Rule Set, and the third Rule Set is at a third level.

149. (New) A method as in Claim 145 wherein the step of communicating further comprises stating at least one Rule having at least one Condition responsive to said desired Action and having an Action that performs said step of communicating.

150. (New) A method as in Claim 145 wherein said first result is a qualitative measure of at least one member of a set of measurable properties comprising performance and Goal completion.

151. (New). A method as in Claim 145 wherein said first Actor effects Delegation to at least one subordinate Actor any combination of any number of the members of a Delegation set consisting of responsibility, accountability, and authority that belong to the first Actor.

152. (New) A method as in Claim 151 wherein said first Actor further effects Delegation by a Delegation Rule comprising at least one Delegation Condition which tests the appropriateness of achieving said desired Action and at least one Action which identifies at least one Actor as recipient of said Delegation.

153. (New) A method as in Claim 152 wherein the Delegation Rule delegates authority by at least one member of a set comprising establishing at least one Rule Set, modifying at least one Rule Set, and deleting at least one Rule Set.

154. (New) A method as in Claim 151 wherein the first Actor delegates authority by at least one member of a set comprising establishing at least one Rule Set, modifying at least one Rule Set, and deleting at least one Rule Set.

155. (New) A method as in Claim 151 wherein said Delegation of accountability is accomplished by enabling at least one member of a set, comprising said second Actor and said second Rule, to alter at least one member of a set comprising measurement of predefined success and measurement process.

156. (New) A method as in Claim 145 further comprising identifying a second Actor according to a Goal stated as a set of requirements Rules and a set of requirements Constraints, and according to measurements stated as a set of capabilities Rules.

157. (New) A method as in Claim 156, wherein each requirement Rule in said set of requirements Rules comprises both:

- at least one requirements Condition identifying at least one member of a set comprising the desired Action and at least one capability required to accomplish said desired Action; and,
- at least one requirements Action identifying at least one member of a set comprising at least one capability of said second Actor and said desired Action.

158. (New) A method as in Claim 156, wherein each capability Rule in said set of capabilities Rules consists of at least one member of a set comprising:

- at least one capabilities Condition identifying at least one Actor and at least one capabilities Action identifying at least one capability of said Actor; and,

at least one capabilities Condition identifying at least one capability, and at least one capabilities Action identifying at least one Actor having said capability.

159. (New) A method as in Claim 156, further comprising a step of matching said second Actor with said desired Goal by at least one criteria for comparing at least one requirements Rule and at least one capabilities Rule.

160. (New) A method as in Claim 159 wherein said criteria is established using at least one member of a match set comprising a best fit match algorithm, a fuzzy match algorithm, an approximate match algorithm, and an exact match algorithm.

161. (New) A method as in Claim 112 wherein the step of modifying at least one Element through the Action of at least a Rule whose Condition is triggered by at least one input from at least one real world event, further comprises:

defining a first adaptation process comprising at least one adaptation Rule;

constructing the adaptation Rule from a Third Rule and requiring in the adaptation Rule's Action at least one member of a set of Actions comprising Element creation, self-modification, feedback, contradiction resolution, conflict resolution, correction for failure, and decision making, each of which is not already any previously existing Rule's Action;

satisfying the Condition of the adaptation Rule through an event; and,

affecting at least one Element through the Action of the adaptation Rule.

162. (New) A method as in Claim 161 wherein said first adaptation process is independent of any external agent.

163. (New) A method as in Claim 161 further comprising monitoring performance by and against specific metrics;

wherein the Condition of the adaptive Rule is satisfied by performance deviations from the specific metrics; and the Action of the adaptive Rule is representative of at least one member of a set comprising business events, business measures, business decisions, business Rules, and business processes.

164. (New) A method as in Claim 161 further comprising:

modifying, through the Action of at least one adaptation Rule, at least a first Changed Rule instantiated at a first level;
effectively modifying through the first Changed Rule instantiated at a first level at least a first Goal of the first level; and
permitting but not requiring intervention from a higher level.

165. (New) A method as in Claim 161 further comprising:

continuously monitoring for at least one occurrence of the at least one real world event; and,
continuously modifying the Elements of the dynamic process, in response to the occurrence of the at least one real world event.

166. (New) A method as in Claim 161 further comprising:

incorporating at least one member of a set of dynamic processes comprising creation, deletion, modification, and correction of both Objectives and Elements;

linking the adaptation process to at least one member of the set of dynamic processes; and,
modifying the Objectives and Elements by the adaptation process according to at least one member of a set comprising Conditions and Constraints.

167. (New) A method as in Claim 161 wherein the step of modifying at least one Element comprises:

detecting a contradiction;

changing at least one Rule Set, further comprising:

identifying at least a first and second conflicting Rule; and,

resolving the contradiction by at least one member of a set comprising adding a new Constraint, altering a existing Constraint, adding a new Rule, altering at least one of the first and second conflicting Rules, and eliminating at least one of the first and second conflicting Rules; and,

logically differentiating the Actions of the first and second conflicting Rules.

168. (New) A method as in Claim 161 further comprising reducing at least one operational latency in the dynamic process through the Action of the adaptation Rule.

169. (New) A method as in Claim 161 wherein the adaptation Rule's Condition is satisfied when a first contradiction occurs, and the adaptation Rule's Action modifies at least one Element.

170. (New) A method as in Claim 169 wherein the first contradiction comprises at least first and second logically-conflicting Elements, and the adaptation Rule's Action selects one of the conflicting Elements through at least one member of a set of selection

techniques comprising random selection, deterministic selection, and arbitrary selection, and modifies the selected Element.

171. (New) A method as in Claim 170 wherein the modification of the selected Element prevents simultaneous application of the first and second logically-conflicting Elements.

172. (New) A method as in Claim 169 wherein the first contradiction comprises at least first and second logically-conflicting Elements, and the adaptation Rule's Action alters at least one of the first and second logically-conflicting Elements and creates a differentiation between the first conflicting Rule's Condition and the second conflicting Rule's Condition, said differentiation preventing the first conflicting Rule's Condition and the second conflicting Rule's Condition from being satisfied by the same set of measurable inputs and Elements.

173. (New) A method as in Claim 172 wherein the adaptation Rule's Action alters at least one of the first and second logically-conflicting Elements, modifies the first logically-conflicting Element to include a Constraint not present in the second logically-conflicting Element, and prevents the possibility of the first and second logically-conflicting Elements from simultaneously occurring.

174. (New) A method as in Claim 161 wherein the step of constructing the adaptation Rule further comprises:

- stating the adaptation Rule's Condition to be satisfied when a first failure occurs;
- and,
- stating the adaptation Rule's Action to both incorporate modification of at least one Element and effect a correction for the first failure.

175. (New) A method as in Claim 174 wherein the first failure comprises not attaining a first Goal and the modification of at least one Element enables the first Goal to be attained by correcting at least one member of a set comprising at least one cause of the first failure and at least one effect of the first failure.

176. (New) A method as in Claim 174 wherein the modification of at least one Element includes at least one member of a set of steps comprising creating, modifying, and deleting a second adaptation Rule.

177. (New) A method as in Claim 174 wherein the first failure comprises not detecting a Measurable Value and the modification of at least one Element comprises at least one member of a set comprising creating the Element, modifying the Element, and deleting the Element.

178. (New) A method as in Claim 174, wherein a second failure comprises not attaining a second Goal and the modification of at least one Element includes the step of redeclaring and restating at least one Action of at least one Rule as a second dynamic process.

179. (New) A method as in Claim 174, wherein the first failure comprises not attaining a first Goal and the modification of at least one Element enables said first Goal to be attained by correcting at least one member of a failure set comprising at least a first cause of the first failure and at least a first effect of the first failure.

180. (New) A method as in Claim 174 wherein the adaptation Rule's Action modifies at least a member Rule of the Objective Rule Set and, when the member Rule's Condition is

satisfied, the member Rule's Action modifies, without human intervention, at least a first member of the set of measurable Goals.

181. (New) A method as in Claim 174 wherein the adaptation Rule's Action modifies at least a first Adaptable Rule of a set of Rules and, when the first Adaptable Rule's Condition is satisfied, the first Adaptable Rule's Action modifies, without human intervention and without modification of any Rule of the Objective Rule Set, at least a first member of a set comprising subordinate Goals and measurable Goals.

182. (New) A method as in Claim 174, wherein the step of declaring and stating at least one Objective Rule Set further comprises:

stating at least a first Objective Rule Set and a second Objective Rule Set,
wherein the first Objective Rule Set operates at a first level of the dynamic process and the second Objective Rule Set operates at a second level of the dynamic process;
and wherein the adaptation Rule's Condition effectively defines the need for a closed loop effect in said first level and the adaptation Rule's Action changes at least one Element in said second level.

183. (New) A method as in Claim 174, wherein the step of modifying at least one Element comprises modifying at least one member of a set comprising Goal, Rule, Rule Set, Condition, Action, Constraint, Measurable Value, and Delegation.

184. (New) A method as in Claim 174 wherein the step of declaring and stating at least one Objective Rule Set comprises stating at least a first Objective Rule Set and a second Objective Rule Set:

wherein the first Objective Rule Set operates at a first level of the dynamic process and the second Objective Rule Set operates at a second level of the dynamic process; and,
wherein a first Goal is associated with the first level and a second Goal is associated with the second level; and the first Goal and the second Goal overlap by having a subgoal in common.

185. (New) A method as in Claim 184 further comprising modifying the overlap to avoid at least one member of a set comprising confrontation problems and race-condition problems.

186. (New) A method as in Claim 112, wherein the step of declaring and stating at least one Objective Rule Set comprises stating at least a first Objective Rule Set and a second Objective Rule Set, wherein the first Objective Rule Set operates at a first level of the dynamic process and the second Objective Rule Set operates at a second level of the dynamic process, and further comprising an organizing Rule comprising:

an organizing Condition; and

an organizing Action;

and the organizing Condition is satisfied by the Condition of at least one Rule in said first Objective Rule Set and the organizing Action comprises at least the second Objective Rule Set.

187. (New) A method as in Claim 186 wherein said organizing Action delegates at least one member of the set comprising a Rule Set, authority, accountability, and responsibility, and said organizing Rule creates a hierarchical Delegation.

188. (New) A method as in Claim 112 wherein the step of declaring and stating at least one Objective Rule Set further comprises stating at least a first Objective Rule Set and a second Objective Rule Set, wherein the first Objective Rule Set operates at a first level of the dynamic process and the second Objective Rule Set operates at a second level of the dynamic process, and wherein the response to at least one Action of at least one Rule in the first Objective Rule Set becomes at least one Condition of at least one Rule in the second Objective Rule Set.

189. (New) A method as in Claim 188 wherein the first level and the second level are identical, and at least one Rule in the first Rule Set receives at least one response of at least one Rule in the second Rule Set as its Condition.

190. (New) A method as in Claim 141 further comprising:

- analyzing the business operations represented in said declarative and therefore non-procedural representation; and,
- refining and tuning at least one member of a set comprising Decision, Business Rule, and Business Process.

191. (New) A computer-implemented business method for actively and declaratively managing, implementing, and executing a first dynamic process incorporating a dynamic pattern of operations driven by real-world conditions, through which at least a first behavioral pattern emerges, comprising:

- specifying a set of at least two ordered Rules, wherein the Action of a first Rule triggers the Condition of a second Rule, and all Rules in the set form a partially ordered set wherein Actions of preceding Rules trigger Conditions of subsequent Rules;

- wherein said dynamic process is the set of possible Conditions and Actions of said partially ordered set of Rules.

192. (New) An apparatus for actively and declaratively managing, implementing, and executing a first dynamic process incorporating a dynamic pattern of operations driven by real-world Conditions, through which at least a first behavioral pattern emerges, comprising:

static memory containing

a set of measurable Goals and Constraints of said first dynamic process;

at least one Rule Set having a plurality of Rules:

wherein the Rules in said Rule Set may act in any order subject to the limitation that, for any specific Rule in said Rule Set, that specific Rule's Condition and applicable Constraints must be satisfied before that specific Rule's Action may occur;

a declarative and therefore non-procedural representation of each Element, and of the steps of declaring, stating, delegating, determining, and modifying;

means for accepting at least one input from the real world, said input comprising a Measurable Value;

means for comparing any input against the Condition of all Elements contained in the static memory;

means for delegating to at least one specific set of Actors consisting of at least one Actor:

at least a first subordinate Objective, subordinate to the Objective, stating the first subordinate Objective as a subset of subordinate, measurable Goals and subordinate Constraints;

a set of Rules for accomplishing said first subordinate Objective;

authority via at least one Rule stating authority for attaining the subordinate, measurable Goals of said first subordinate Objective;

accountability via at least one Rule stating accountability for attaining the subordinate, measurable Goals of said first subordinate Objective; and, responsibility via at least one Rule stating responsibility for attaining the subordinate, measurable Goals of said first subordinate Objective subject to the Constraints and subordinate Constraints;

means for determining the satisfaction of any Rule's Condition and subsequently triggering the occurrence of said Rule's Action wherein said Rule's Condition incorporates at least one Measurable Value from at least one member of a set of sources and said set of sources comprise a source internal to said dynamic process, a source external to said dynamic process, and a source in the real world;

means for modifying at least one Element through the Action of at least a Rule whose Condition is triggered by at least one input from an event in the real world;

means for executing automatically at least a subset of the dynamic pattern of operations, defining said subset of the dynamic pattern of operations as comprising a plurality of operations, each operation therein being temporally contiguous to at least one other operation in said subset of the dynamic pattern of operations; and,

means for specifying a plurality of Elements and implementing each of the steps of declaring and stating, delegating, determining, and modifying, through a declarative and therefore non-procedural representation;
and,

means for iterating through the steps of declaring, stating, delegating, determining, and modifying.